

# Observing Systems & Advanced Technology (OSAT)

## Question & Answer Session



## OSAT Take Home Messages

- GLERL vessels provide one-NOAA Great Lakes vessel support
  - ✓ full-service vessel operations and maintenance facility
- Remote sensing and coastal observations research and development has:
  - ✓ resulted in R2X successes and laid the foundation for year-round observations
  - ✓ significantly increased environmental awareness
  - ✓ developed Great Lakes Water Quality Agreement adaptive management monitoring capacity
  - ✓ partnered with universities, industry and Great Lakes Observing System to deploy a coastal buoy network

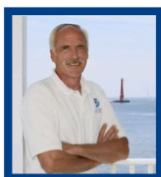
## OSAT Theme Challenges / Future Plans

- Organize NOAA Regional vessel requirements and create a comprehensive and sustainable management plan
- Consolidate NOAA support for a new Regional Research Vessel
- Develop techniques to collect real-time, year-round, under-ice observations using ReCON technology coupled with persistent autonomous vehicles.
- Develop unmanned air systems for HAB detection, mapping, classification
- Initiate discussion with NASA Glenn (Cleveland OH) on CubeSat Hyperspectral sensor
- Develop and evaluate satellite derived products for the Great Lakes region including ice thickness and soil moisture
- Develop a Decision Support Tool using database of CoastWatch and other geophysical data

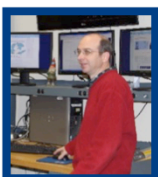


- Proposal submitted to the Great Lakes Observing System Regional Association for real-time, year-round observing stations in four Great Lakes locations, August 7, 2015.
- Unmanned aerial systems (UAS) proposal HABs detection and mapping submitted to NOAA UAS Program Office, February 24, 2016.

## Questions for the OSAT Team?



**Dennis Donahue**  
Great Lakes  
Field Stations  
and Vessels



**Ron Muzzi**  
Observing System  
Data Acquisition &  
Data Management



**Steve Ruberg**  
(Theme Lead)  
Observing Systems  
Research and  
Technology Transition



**George Leshkevich**  
CoastWatch  
Satellite Research  
and Product  
Development



**Andrea Vander Woude**  
Hyperspectral  
Airborne and Hand-  
held Sensors on  
Lake Erie



**Tom Johengen**  
Mobile and Buoy  
Monitoring  
Technologies